Complete Summary

TITLE

Diagnosis and treatment of chest pain and acute coronary syndrome (ACS): percentage of patients with acute myocardial infarction (AMI) receiving thrombolytics with a "door-to-drug time" (time from presentation to administration of drug) of less than 30 minutes.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Diagnosis and treatment of chest pain and acute coronary syndrome (ACS). Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Oct. 69 p. [138 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients with acute myocardial infarction (AMI) receiving thrombolytics with a "door-to-drug time" (time from presentation to administration of drug) of less than 30 minutes.

RATIONALE

The priority aim addressed by this measure is to minimize the delay in administering thrombolytics to patients with acute myocardial infarction (AMI).

PRIMARY CLINICAL COMPONENT

Acute myocardial infarction (AMI); thrombolytics; "door-to-drug time" (time from presentation to administration of drug)

DENOMINATOR DESCRIPTION

Number of patients with acute myocardial infarction (AMI) receiving thrombolytics in the emergency department in the measurement period

NUMERATOR DESCRIPTION

Number of patients with acute myocardial infarction (AMI) receiving thrombolytics within 30 minutes of presentation in the emergency department (All reportable "door-to-drug times"* are rounded to the nearest minute.)

*Formula for calculating "door-to-drug time": Time of initiation of thrombolytic therapy to patient with AMI - Time of arrival of patient with AMI in the emergency department = Door-to-drug time in minutes

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Diagnosis and treatment of chest pain and acute coronary syndrome (ACS).

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Emergency Medical Services
Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Timeliness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Adults 18 and older diagnosed as having an acute myocardial infarction (AMI)

It is suggested that data collection be completed on a real-time basis. This measure references all patients to improve process sensitivity at sites where few AMI patients are routinely discharged in a given measurement period.

Should real-time data collection present insurmountable institutional obstacles, consider using the following principal diagnosis codes (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM]) for identification of patient records for abstracting:

- 410 - AMI, with or without first decimal extensions in the set (0,1,2,3,4,5,6,7,8,9); as well as second decimal extensions in the set (0 or 1 only).

In addition to tracking the percentage of patients treated in less than 30 minutes, sites may choose to also track either the mean (average) or the median (middle point) of the data. Using the median is preferred. The median is the value of the middle item in the data set. The median value is preferred over the mean (average) value because it minimizes the impact of outlying data points.

For example, if one case of receiving thrombolytics took 120 minutes when the other 10 cases in the data set received them within 20 to 30 minutes, the mean would be about 34 minutes. However, the median for that same data set might be around 26 minutes, and would more accurately reflect the usual performance of the system.

Data can be collected weekly or monthly.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
Number of patients with acute myocardial infarction (AMI) receiving thrombolytics in the emergency department in the measurement period

Exclusions
Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Number of patients with acute myocardial infarction (AMI) receiving thrombolytics within 30 minutes of presentation in the emergency department (All reportable "door-to-drug times"* are rounded to the nearest minute.)

*Formula for calculating "door-to-drug time": Time of initiation of thrombolytic therapy to patient with AMI - Time of arrival of patient with AMI in the emergency department = Door-to-drug time in minutes

Exclusions
Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Percentage of patients with AMI receiving thrombolytics with a "door-to-drug time" (time from presentation to administration of drug) of less than 30 minutes.

MEASURE COLLECTION

Diagnosis and Treatment of Chest Pain and Acute Coronary Syndrome (ACS) Measures

DEVELOPER

Institute for Clinical Systems Improvement

FUNDING SOURCE(S)

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

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R. Scott Wright, MD is a consultant for and receives research/grant funding from Hoffman LaRoche pertaining to clinical trial testing of Dalcetrapib.

No other work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at www.icsi.org.

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2004 Nov

REVISION DATE

2008 Oct

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Diagnosis and treatment of chest pain and acute coronary syndrome (ACS). Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 Oct. 76 p.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Diagnosis and treatment of chest pain and acute coronary syndrome (ACS). Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2008 Oct. 69 p. [138 references]

MEASURE AVAILABILITY

The individual measure,"Percentage of Patients with AMI Receiving Thrombolytics with a "Door-to-Drug Time" (Time from Presentation to Administration of Drug) of Less Than 30 Minutes," is published in "Health Care Guideline: Diagnosis and Treatment of Chest Pain and Acute Coronary Syndrome (ACS)." This document is available from the Institute for Clinical Systems Improvement (ICSI) Web site.

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NQMC STATUS

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